659313

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Search Request Form Scientific and Technical Information Center

	Me	
Requester's Full Name: <u>L. Eric</u>	<u>Crane</u> Examiner #:	65753 Date: 01/30/02
Art Unit: 1623 Phone Number:		
Mail Box & Bldg/Room Loc: 8D	-14/CM-1 Results I	Format Preferred: PAPER
[8B-19/CM-1]	ted nlease prioritize	searches in order of need.
If more than one search is submit		
Please provide a detailed statement of the s subject matter to be searched. Include the acronyms, and registry numbers, and combi any terms that may have a special meaning. known. Please attach a copy of the cover	elected species or structu ne with the concept or u Give examples or releva	tility of the invention. Define ant citations, authors, etc., if
Title of Invention: See attached.	copy of claims.	
Inventors (please provide full nat		l copy of claims.
Earliest Priority Filing Date: 01		
For Sequence Searches only Ple (parent, child, divisional, or issued serial number. Please search for com (aka 2-deoxy-2-aminogly (see claim 4) together wi claim 6) or CH3-SO2-CH adenosylmethionine (SA)	patent numbers) along positions consucose) and the a sweetener [13, or gelatin, a.Me] (see claims)	taining glucosamine chondroitin (see claim 3 and or cartlage or S-

STAFF USE ONLY	Type of Search	Vendors/cost as:
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Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up: 2/1	Bibliographic	Dr. Link
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Searcher Prep & Review Time: 30	Full Text	Seq.Syst'ms
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time:	Other	Other(Specify)

PTO-1590 (8-2001)

WHAT IS CLAIMED IS:

- 1. A composition comprising:
 - a) a chondroprotective agent selected from the group consisting of gelatin, cartilage, aminosugars, glycosaminoglycans, methylsulfonylmethane, precursors of methylsulfonylmethane, S-adenosylmethionine, and mixtures thereof;
 - b) a sweetening agent other than glucose, dextrose, sucrose, and fructose; and
 - c) at least about 10% water, by weight of the composition.
- 2. A composition according to Claim 1 wherein the chondroprotective agent is selected from the group consisting of aminosugars, glycosaminoglycans, S-adenosylmethionine, and mixtures thereof.
- 3. A composition according to Claim 2 wherein the sweetening agent is selected from the group consisting of sorbitol, mannitol, xylitol, erythritol, malitol, maltose, lactose, fructooligosaccharides, lo han guo, steviside, acesulfame, aspartame, sucralose, saccharin, xylose, arabinose, levulose, isomalt, and ribose.
- 0 k L85
- 4. A composition according to Claim 3 wherein the chondroprotective agent is selected from the group consisting of aminosugars, glycosaminoglycans, and mixtures thereof and wherein:
 - a) the aminosugars are selected from the group consisting of silucosamine and salts thereof; and
 - b) the glycosaminoglycans are selected from the group consisting of chondroitin and salts thereof.
- 5. A composition according to Claim 4 further comprising at least one sweetener selected from the group consisting of sucrose, fructose, and mixtures thereof.
- 6. A composition according to Claim 5 further comprising a caloric sweetener selected from the group consisting of glucose, dextrose, sucrose, fructose, and mixtures thereof.

- 7. A composition according to Claim 4 wherein the sweetening agent is selected from the group consisting of xylitol, erythritol, fructooligosaccharides, lo han guo, stevioside, acesulfame, aspartame, sucralose, and mixtures thereof.
- 8. A composition according to Claim 7 wherein the sweetening agent is selected from the group consisting of erythritol, sucralose, and mixtures thereof.
- 9. A composition according to Claim 8 further comprising one or more beverage components selected from the group consisting of fruit juice, tea, milk solids, and mixtures thereof.
- 10. A composition according to Claim 9 comprising at least about 75% water, by weight of the composition.
- 11. A composition according to Claim 10 further comprising one or more nutrients.
- 12. A composition according to Claim 10 further comprising one or more omega-3-fatty acids.
- 13. A composition comprising:
 - a) a chondroprotective agent selected from the group consisting of gelatin, cartilage, aminosugars, glycosaminoglycans, methylsulfonylmethane, precursors of methylsulfonylmethane, S-adenosylmethionine, salts thereof, and mixtures thereof;
 and
- b) a sweetening agent other than glucose, dextrose, sucrose, and fructose; wherein the composition is substantially free of aspartame.
- 14. A composition according to Claim 13 wherein the chondroprotective agent is selected from the group consisting of aminosugars, glycosaminoglycans, S-adenosylmethionine, and mixtures thereof.
- 15. A composition according to Claim 14 wherein the sweetening agent is selected from the group consisting of sorbitol, mannitol, xylitol, erythritol, malitol, maltose, lactose, fructooligosaccharides, lo han guo, stevioside, acesulfame, aspartame, sucralose, saccharin, xylose, arabinose, levulose, isomalt, and ribose.

- 16. A composition according to Claim 15 wherein the chondroprotective agent is selected from the group consisting of aminosugars, glycosaminoglycans, and mixtures thereof and wherein:
 - a) the aminosugars are selected from the group consisting of glucosamine and salts thereof; and
 - b) the glycosaminoglycans are selected from the group consisting of chondroitin and salts thereof.
- 17. A composition according to Claim 16 further comprising at least one sweetener selected from the group consisting of sucrose, fructose, and mixtures thereof.
- 18. A composition according to Claim 17 further comprising a caloric sweetener selected from the group consisting of glucose, dextrose, sucrose, fructose, and mixtures thereof.
- 19. A composition according to Claim 16 wherein the sweetening agent is selected from the group consisting of xylitol, erythritol, fructooligosaccharides, lo han guo, stevioside, acesulfame, aspartame, sucralose, and mixtures thereof.
- 20. A composition according to Claim 19 wherein the sweetening agent is selected from the group consisting of erythritol, sucralose, and mixtures thereof.
- 21. A composition according to Claim 20 further comprising one or more beverage components selected from the group consisting of fruit juice, tea, milk solids, and mixtures thereof.

22. A composition comprising:

- a) a chondroprotective agent selected from the group consisting of gelatin, cartilage, aminosugars, glycosaminoglycans, methylsulfonylmethane, precursors of methylsulfonylmethane, S-adenosylmethionine, salts thereof, and mixtures thereof;
- b) at least about 10% water, by weight of the composition; and
- c) less than about 19 grams total carbohydrate per every 230 milliliters of the composition.

- 23. A composition according to Claim 22 wherein the chondroprotective agent is selected from the group consisting of aminosugars, glycosaminoglycans, S-adenosylmethionine, and mixtures thereof.
- 24. A composition according to Claim 23 comprising a sweetening agent selected from the group consisting of sorbitol, mannitol, xylitol, erythritol, malitol, maltose, lactose, fructooligosaccharides, lo han guo, stevioside, acesulfame, aspartame, sucralose, saccharin, xylose, arabinose, levulose, isomalt, and ribose.
- 25. A composition according to Claim 24 wherein the chondroprotective agent is selected from the group consisting of aminosugars, glycosaminoglycans, and mixtures thereof and wherein:
 - a) the aminosugars are selected from the group consisting of glucosamine and salts thereof; and
 - b) the glycosaminoglycans are selected from the group consisting of chondroitin and salts thereof.
- 26. A composition according to Claim 25 further comprising at least one sweetener selected from the group consisting of sucrose, fructose, and mixtures thereof.
- 27. A composition according to Claim 26 further comprising a caloric sweetener selected from the group consisting of glucose, dextrose, sucrose, fructose, and mixtures thereof.
- 28. A composition according to Claim 27 comprising less than about 18.5 grams total carbohydrate per every 230 milliliters of the composition.
- 29. A composition according to Claim 28 further comprising one or more beverage components selected from the group consisting of fruit juice, tea, milk solids, and mixtures thereof.
- 30. A composition according to Claim 28 comprising less than about 18 grams total carbohydrate per every 230 milliliters of the composition.
- 31. A composition according to Claim 30 comprising at least about 75% water, by weight of the composition.

- 32. A composition according to Claim 31 further comprising one or more nutrients.
- 33. A composition according to Claim 31 further comprising one or more omega-3-fatty acids.
- 34. A composition comprising:
 - a) a chondroprotective agent selected from the group consisting of gelatin, cartilage, aminosugars, glycosaminoglycans, methylsulfonylmethane, precursors of methylsulfonylmethane, S-adenosylmethionine, salts thereof, and mixtures thereof;
 and
 - b) less than about 18 grams total carbohydrate per every 230 milliliters of the composition;

wherein the composition is substantially free of aspartame.

- 35. A composition according to Claim 34 wherein the chondroprotective agent is selected from the group consisting of aminosugars, glycosaminoglycans, S-adenosylmethionine, and mixtures thereof.
- 36. A composition according to Claim 35 comprising a sweetening agent selected from the group consisting of sorbitol, mannitol, xylitol, erythritol, malitol, maltose, lactose, fructooligosaccharides, lo han guo, stevioside, acesulfame, aspartame, sucralose, saccharin, xylose, arabinose, levulose, isomalt, and ribose.
- 37. A composition according to Claim 36 wherein the chondroprotective agent is selected from the group consisting of aminosugars, glycosaminoglycans, and mixtures thereof and wherein:
 - a) the aminosugars are selected from the group consisting of glucosamine and salts thereof; and
 - b) the glycosaminoglycans are selected from the group consisting of chondroitin and salts thereof.
- 38. A composition according to Claim 37 further comprising at least one sweetener selected from the group consisting of sucrose, fructose, and mixtures thereof.

- 39. A composition according to Claim 38 further comprising a caloric sweetener selected from the group consisting of glucose, dextrose, sucrose, fructose, and mixtures thereof.
- 40. A composition according to Claim 39 comprising less than about 18.5 grams total carbohydrate per every 230 milliliters of the composition.
- 41. A composition according to Claim 40 further comprising one or more beverage components selected from the group consisting of fruit juice, tea, milk solids, and mixtures thereof.
- 42. A composition according to Claim 41 comprising less than about 18 grams total carbohydrate per every 230 milliliters of the composition.

43. A kit comprising:

- (a) a composition according to Claim 1; and
- (b) information that use of the composition is useful for one or more benefits selected from the group consisting of joint health benefits, bone health benefits, antiinflammation, and utility for diabetic mammals.

44. A kit comprising:

- (a) a composition according to Claim 13; and
- (b) information that use of the composition is useful for one or more benefits selected from the group consisting of joint health benefits, bone health benefits, anti-inflammation, and utility for diabetic mammals.

45. A kit comprising:

- (a) a composition according to Claim 22; and
- (b) information that use of the composition is useful for one or more benefits selected from the group consisting of joint health benefits, bone health benefits, antiinflammation, and utility for diabetic mammals.

46. A kit comprising:

- (a) a composition according to Claim 34; and
- (b) information that use of the composition is useful for one or more benefits selected from the group consisting of joint health benefits, bone health benefits, anti-inflammation, and utility for diabetic mammals.
- 47. A method of treating a condition selected from the group consisting of joint dysfunction, bone dysfunction, and inflammation comprising orally administering to a mammal a composition according to Claim 1.
- 48. A method of treating a condition selected from the group consisting of joint dysfunction, bone dysfunction, and inflammation comprising orally administering to a mammal a composition according to Claim 13.
- 49. A method of treating a condition selected from the group consisting of joint dysfunction, bone dysfunction, and inflammation comprising orally administering to a mammal a composition according to Claim 22.
- 50. A method of treating a condition selected from the group consisting of joint dysfunction, bone dysfunction, and inflammation comprising orally administering to a mammal a composition according to Claim 34.

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L34 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS
     2001:903816 HCAPLUS
AN
     136:42843
DN
     Compositions, kits, and methods for promoting defined health benefits
TI.
     Kern, Kenneth Norman; Heisey, Matthew Thomas
IN
                                                     € 2 of inventors
     The Procter + Gamble Company, USA
PA
     PCT Int. Appl., 45 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO. DATE
                      ____
                                           _____
                                           WO 2001-US17714 20010601
PΙ
     WO 2001093847
                       A2
                            20011213
         W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI,
             FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
             KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
            MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,
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             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            20000602
PRAI US 2000-586213
                      Α
     US 2001-760280
                       Α
                            20010112
     The present invention is directed to compns. comprising: (a) a first
     component selected from the group consisting of gelatin,
     cartilage, amino sugars, glycosaminoglycans,
     methylsulfonylmethane, precursors of methylsulfonylmethane,
     S-adenosylmethionine, salts and mixts.; and (b) a second component
     comprising a cation source selected from the group consisting of calcium,
     potassium, magnesium, and mixts. and an edible acid source. The present
     invention is further directed to food, beverage, pharmaceutical,
     over-the-counter, and dietary supplement products, which comprise the
     present compns. The invention also relates to kits comprising the present
     compns. and information that use of the compn. promotes one or more of the
     presently defined health benefits, including joint health, bone health,
     cardiac health, and anti-inflammation. The present invention addnl.
     relates to methods of treating joint function, bone function, cardiac
     function, or inflammation comprising administering to a mammal a compn. as
     defined herein. Thus, hard lemon candies are prepd. by combining the
     following components as indicated: sugar 200, light corn syrup 63, water
     60, lemon flavor glucosamine-HCl 16, and calcium citrate malate 14.9 g.
     66-84-2, Glucosamine hydrochloride 67-71-0,
IT
     Methylsulfonylmethane 29031-19-4, Glucosamine sulfate
     29908-03-0 216699-44-4
     RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (compns. and kits for promoting defined health benefits)
RN
     66-84-2 HCAPLUS
     D-Glucose, 2-amino-2-deoxy-, hydrochloride (8CI, 9CI) (CA INDEX NAME)
```

Absolute stereochemistry. Rotation (+).

HCl

RN 67-71-0 HCAPLUS CN Methane, sulfonylbis- (9CI) (CA INDEX NAME)

RN 29031-19-4 HCAPLUS

CN D-Glucose, 2-amino-2-deoxy-, sulfate (salt) (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

CM 2

CRN 3416-24-8 CMF C6 H13 N O5

Absolute stereochemistry. Rotation (+).

RN 29908-03-0 HCAPLUS

CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-,

inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 216699-44-4 HCAPLUS

CN D-Glucose, 2-amino-2-deoxy-, sulfate (salt), compd. with potassium chloride (KCl) (2:1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 7447-40-7 CMF Cl K

c1- K

CM 2

CRN 14999-43-0

CMF C6 H13 N O5 . 1/2 H2 O4 S

CM 3

CRN 7664-93-9 CMF H2 O4 S

CM 4

CRN 3416-24-8 CMF C6 H13 N O5

Absolute stereochemistry. Rotation (+).

```
ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
L34
ΑN
     2001:903788 HCAPLUS
DN
     136:19486
     Kits and methods for optimizing the efficacy of chondroprotective
TI
     compositions
     Sarama, Robert Joseph; Harris, Judith Lynn; Spence, Kris Eugene
IN
     The Procter + Gamble Company, USA
     PCT Int. Appl., 40 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 2
     PATENT NO.
                         KIND
                               DATE
                                                APPLICATION NO. DATE
                        ____
                               _____
                                                -----
                         A2
                                                WO 2001-US17721 20010601
PI
     WO 2001093833
                               20011213
          W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
              CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI,
              FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
              KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
              RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 2000-586514
                               20000602
                         А
     The present invention is directed to kits which are useful for promoting
     one or more health benefits including, for example, joint health, bone
     health, cardiac health, and/or anti-inflammation. In particular, the
     present kits comprise: (a) a compn. comprising one or more
     chondroprotective agents and water; and (b) information selected from the
     group consisting of: (i) dose-form information; (ii) instruction or
     suggestion of ingestion of the compn. within about 4 h of ingestion of a
     food or beverage; and (iii) combinations thereof. The chondroprotective
     agent is selected from gelatin, cartilage, amino
     sugars, glycosaminoglycans, methylsulfonylmethane, precursors of
     methylsulfonylmethane, S-adenosylmethionine, and their salts. The present
     invention is further directed to kits comprising: (a) a compn. comprising
     one or more chondroprotective agents and at least about 80% water; and (b)
     a sep. food or beverage. The present invention also relates to methods of
     enhancing a benefit assocd. with a compn. comprising one or more
     chondroprotective agents and water, the method comprising administering to
     a mammal the compn. within about 4 h of administration of a food or
     beverage. For example, a ready-to-drink beverage compn. was prepd. contg.
     (by wt.) glucosamine-HCl 3.2%, fructose 9.3%, thickener 0.04%, calcium citrate maleate 2.3%, natural flavors 0.02%, ascorbic acid 0.16%, citric
     acid 0.35%, and water up to 100%.
IT
     66-84-2, Glucosamine hydrochloride 67-71-0,
```

Methylsulfonylmethane 29908-03-0

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(kits and methods for optimizing the efficacy of chondroprotective compns.)

RN 66-84-2 HCAPLUS

CN D-Glucose, 2-amino-2-deoxy-, hydrochloride (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

HCl

RN 67-71-0 HCAPLUS

CN Methane, sulfonylbis- (9CI) (CA INDEX NAME)

RN 29908-03-0 HCAPLUS

CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L34 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:903784 HCAPLUS

DN 136:19484

TI Low carbohydrate compositions, kits thereof, and methods of use

IN Heisey, Matthew Thomas; Kern, Kenneth Norman;

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Spence, Kris Eugene
                                                                   PCT equivalent
No Search Report
     The Procter + Gamble Company, USA
PA
     PCT Int. Appl., 37 pp.
SO
     CODEN: PIXXD2
DΤ
     Patent
     English
LΑ
FAN.CNT 2
                      KIND
                            DATE
                                            APPLICATION NO.
     PATENT NO.
                                                             DATE
                             -----
         001093831 (A2) 20011213 WO 2001-US17716 20010601
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
PΙ
     WO 2001093831
             CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI,
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             KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
             MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,
             TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
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             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 2000-586514
                      Α
                            20000602
     US 2001-759965
                            20010112
                       Α
AΒ
     The present invention relates to compns., kits, and methods utilized for
     the treatment of joint dysfunction, bone dysfunction, and/or inflammation.
     The compn. utilized herein are useful for those mammals experiencing
     painful or debilitating joint, bone, or inflammatory conditions, and are
     particularly suited for mammals which are diabetic or at risk for
     diabetes, as well as those desiring or requiring conveniently dosed
     chondroprotective compns. having low carbohydrate content, low caloric
     value and/or having a low glycemic index. In particular, the present
     compns. comprise: (a) a chondroprotective agent selected from
     gelatin, cartilage, aminosugars,
     glycosaminoglycans, methylsulfonylmethane, precursors of
     methylsulfonylmethane, S-adenosylmethionine, and mixts. thereof; (b) a
     sweetening agent other than glucose, dextrose, sucrose, and
     fructose; and (c) at least about 10 water, by wt. of the compn.
     alternative embodiment of the present invention, the present compns.
     comprise: (a) a chondroprotective agent selected from qelatin,
     cartilage, aminosugars, glycosaminoglycans,
     methylsulfonylmethane, precursors of methylsulfonylmethane,
     S-adenosylmethionine, salts thereof, and mixts. thereof; and (b) a
     sweetening agent other than glucose, dextrose, sucrose, and
     fructose; wherein the compn. is substantially free of aspartame.
     Other compns. of the present invention comprise a chondroprotective agent
     selected from gelatin, cartilage, aminosugars,
     glycosaminoglycans, methylsulfonylmethane, precursors of
     methylsulfonylmethane, S-adenosylmethionine, and mixts. thereof, and have
     a low carbohydrate content, as defined herein. For example, a low-calorie
     ready-to-drink beverage compn. was prepd. contg. (by wt.) ascorbic acid
     0.07%, calcium disodium EDTA 0.003%, calcium hydroxide 0.25%, citric acid
     0.63%, erythritol 2.0%, fructose 2.0%, glucosamine-HCl 0.75%, malic acid
     0.22%, sodium benzoate 0.002%, sodium CM-cellulose 0.03%, sucralose (25%)
     0.03%, xanthan gum 0.006%, juice concs. 2.0%, colors 0.007%, flavor oils
     0.04%, and water up to 100%.
ΙT
     22839-47-0, Aspartame
     RL: BSU (Biological study, unclassified); FFD (Food or feed use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
```

(low carbohydrate compns. and kits for treatment of joint and bone dysfunction, and/or inflammation)

RN 22839-47-0 HCAPLUS

CN L-Phenylalanine, L-.alpha.-aspartyl-, 2-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 66-84-2, Glucosamine hydrochloride 67-71-0,

Methylsulfonylmethane 81-07-2, Saccharin

29908-03-0

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(low carbohydrate compns. and kits for treatment of joint and bone dysfunction, and/or inflammation)

RN 66-84-2 HCAPLUS

CN D-Glucose, 2-amino-2-deoxy-, hydrochloride (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

● HCl

RN 67-71-0 HCAPLUS

CN Methane, sulfonylbis- (9CI) (CA INDEX NAME)

RN 81-07-2 HCAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide (9CI) (CA INDEX NAME)

RN 29908-03-0 HCAPLUS

CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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L1
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       N
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                 0
5 6 7
   2 3
         4
NODE ATTRIBUTES:
CONNECT IS E1 RC AT
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CONNECT IS E1
             RC AT
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CONNECT IS E1
             RC AT
                     10
CONNECT IS E1
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                     11
CONNECT IS E1 RC AT
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
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L7
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\Gamma8
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L9
             2) SEA FILE=REGISTRY ABB=ON PLU=ON FRUCTOSE/CN
L10 (
         21382) SEA FILE=HCAPLUS ABB=ON PLU=ON L10
L11 (
             1) SEA FILE=REGISTRY ABB=ON PLU=ON SUCROSE/CN
L12 (
         49029) SEA FILE=HCAPLUS ABB=ON PLU=ON L12
L13 (
             1) SEA FILE=REGISTRY ABB=ON PLU=ON DEXTROSE/CN
L14 (
        117738) SEA FILE=HCAPLUS ABB=ON PLU=ON L14
L15 (
L16 (
             2) SEA FILE=REGISTRY ABB=ON PLU=ON GLUCOSE/CN
L17 (
        117829) SEA FILE=HCAPLUS ABB=ON PLU=ON L16
           126) SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND (L4 OR SWEET? OR L9 OR
L18 (
               GELATIN? OR CARTILAG? OR L17 OR GLUCOSE? OR L15 OR DEXTROSE?
               OR L13 OR SUCROSE? OR L11 OR FRUCTOSE?)
```

```
4) SEA FILE=HCAPLUS ABB=ON PLU=ON HEISEY M?/AU
L19 (
           249) SEA FILE=HCAPLUS ABB=ON PLU=ON KERN K?/AU
L20 (
           79) SEA FILE=HCAPLUS ABB=ON PLU=ON SPENCE K?/AU
L21 (
            1) SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (L19 OR L20 OR L21)
L22 (
           125 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 NOT L22
L23
           262 SEA FILE=REGISTRY ABB=ON PLU=ON GLUCOSAMIN?/CN
L42
L43
           235 SEA FILE=REGISTRY ABB=ON PLU=ON CHONDROITIN?/CN
L44
          6038 SEA FILE=HCAPLUS ABB=ON PLU=ON L42
          8081 SEA FILE=HCAPLUS ABB=ON PLU=ON L43
L45
          1114 SEA FILE=HCAPLUS ABB=ON PLU=ON (L44 OR GLUCOSAMINE?) AND
L47
                (L45 OR CHONDROITIN?)
             1 SEA FILE=REGISTRY ABB=ON PLU=ON STEVIOSIDE/CN
L48
           687 SEA FILE=HCAPLUS ABB=ON PLU=ON L48
L49
L50
             O SEA FILE=REGISTRY ABB=ON PLU=ON LO HAN GUO/CN
L51
             O SEA FILE=HCAPLUS ABB=ON PLU=ON L50
             1 SEA FILE=REGISTRY ABB=ON PLU=ON LACTOSE/CN
L52
         16596 SEA FILE=HCAPLUS ABB=ON PLU=ON L52
L53
L54
             2 SEA FILE=REGISTRY ABB=ON PLU=ON MALTOSE/CN
          9591 SEA FILE=HCAPLUS ABB=ON PLU=ON L54
L55
             O SEA FILE=REGISTRY ABB=ON PLU=ON MALITOL/CN
L56
             O SEA FILE=HCAPLUS ABB=ON PLU=ON L56
L57
             1 SEA FILE=REGISTRY ABB=ON PLU=ON ERYTHRITOL/CN
L58
          1995 SEA FILE=HCAPLUS ABB=ON PLU=ON L58
L59
             1 SEA FILE=REGISTRY ABB=ON PLU=ON XYLITOL/CN
L60
          4118 SEA FILE=HCAPLUS ABB=ON PLU=ON L60
L61
L62
             2 SEA FILE=REGISTRY ABB=ON PLU=ON MANNITOL/CN
          11046 SEA FILE=HCAPLUS ABB=ON PLU=ON L62
L63
L64
             1 SEA FILE=REGISTRY ABB=ON PLU=ON SORBITOL/CN
L65
         13343 SEA FILE=HCAPLUS ABB=ON PLU=ON L64
            34 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND ( L65 OR SORBITOL? OR
L66
               L63 OR MANNITOL? OR L61 OR XYLITOL? OR L59 OR ERYTHRITOL? OR
               L57 OR MALITOL? OR L55 OR MALTOSE? OR L53 OR LACTOSE? OR
               FRUCTOOLIGOSACCHARIDE? OR LO HAN GUO? OR L51 OR L49 OR
               STEVIOSIDE?)
             3 SEA FILE=REGISTRY ABB=ON PLU=ON RIBOSE/CN
L67
L68
          4144 SEA FILE=HCAPLUS ABB=ON PLU=ON L67
L69
             1 SEA FILE=REGISTRY ABB=ON PLU=ON ISOMALT/CN
           273 SEA FILE=HCAPLUS ABB=ON PLU=ON L69
L70
L71
             1 SEA FILE=REGISTRY ABB=ON PLU=ON LEVULOSE/CN
L72
         21375 SEA FILE=HCAPLUS ABB=ON PLU=ON L71
L73
             1 SEA FILE=REGISTRY ABB=ON PLU=ON ARABINOSE/CN
L74
          4265 SEA FILE=HCAPLUS ABB=ON PLU=ON L73
             2 SEA FILE=REGISTRY ABB=ON PLU=ON XYLOSE/CN
L75
          10216 SEA FILE=HCAPLUS ABB=ON PLU=ON L75
L76
             1 SEA FILE=REGISTRY ABB=ON PLU=ON SACCHARIN/CN
L77
          3239 SEA FILE=HCAPLUS ABB=ON PLU=ON L77
L78
             1 SEA FILE=REGISTRY ABB=ON PLU=ON SUCRALOSE/CN
L79
           292 SEA FILE=HCAPLUS ABB=ON PLU=ON L79
L80
L81
             1 SEA FILE=REGISTRY ABB=ON PLU=ON ASPARTAME/CN
          2256 SEA FILE=HCAPLUS ABB=ON PLU=ON L81
L82
             1 SEA FILE=REGISTRY ABB=ON PLU=ON ACESULFAME/CN
L83
           138 SEA FILE=HCAPLUS ABB=ON PLU=ON L83
71 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND ( L84 OR ACESULFAME?
L84
L85
               OR L82 OR ASPARTAME? OR L80 OR SUCRALOSE? OR SACCHARIN? OR L78
               OR L76 OR XYLOSE? OR L74 OR ARABINOSE? OR L72 OR LEVULOSE? OR
               L70 OR ISOMALT? OR L68 OR RIBOSE?)
L86
            89 SEA FILE=HCAPLUS ABB=ON PLU=ON L66 OR L85
```

L87



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=> d que
```

```
STR
L1
             9
                  10 11 12
                   0
                          0
    \equiv CH\checkmark CH\checkmark CH\checkmark CH\checkmark CH2-O
      2
             3
                                 6
```

```
NODE ATTRIBUTES:
CONNECT IS E1 RC AT
                        8
CONNECT IS E1
               RC AT
                       9
CONNECT IS E1
               RC AT
                      10
CONNECT IS E1
               RC AT
                      11
CONNECT IS E1 RC AT
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
```

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE L2

Me√ SO2·Me 1 2 3

NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE

```
236 SEA FILE=REGISTRY SSS FUL L1
            88 SEA FILE=REGISTRY SSS FUL L2
T.7
           6254 SEA FILE=HCAPLUS ABB=ON PLU=ON L4
           235 SEA FILE=REGISTRY ABB=ON PLU=ON CHONDROITIN?/CN
L8
           8081 SEA FILE=HCAPLUS ABB=ON PLU=ON L8
L9
           245 SEA FILE-HCAPLUS ABB-ON PLU-ON L7 AND ( L9 OR CHONDROITIN?)
L10
              1 SEA FILE=REGISTRY ABB=ON PLU=ON L-METHIONINE, S-ADENOSYL-/CN
L11
                                                FRUCTOSE/CN
L12
              2 SEA FILE=REGISTRY ABB=ON PLU=ON
L13
          21382 SEA FILE=HCAPLUS ABB=ON PLU=ON L12
L14
              1 SEA FILE=REGISTRY ABB=ON PLU=ON SUCROSE/CN
          49029 SEA FILE=HCAPLUS ABB=ON PLU=ON L14
L15
L16
              1 SEA FILE=REGISTRY ABB=ON PLU=ON DEXTROSE/CN
L17
         117738 SEA FILE=HCAPLUS ABB=ON PLU=ON L16
              2 SEA FILE=REGISTRY ABB=ON PLU=ON GLUCOSE/CN
L18
         117829 SEA FILE=HCAPLUS ABB=ON PLU=ON L18
L19
L20
            126 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND (L6 OR SWEET? OR L11
               OR GELATIN? OR CARTILAG? OR L19 OR GLUCOSE? OR L17 OR DEXTROSE?
```

glucosamine and chondroitin and (Sweet? or cartilage or Me-SOz-Me or SAMe or glucose or sucrose or dextrose or fructose)

		OR	L15 OR SUCRO	SE? OR L	13 OR FR	JCTOSE?)				
L21	4	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	HEISEY M?/AU				
L22	249	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	KERN K?/AU				•
L23	79	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	SPENCE K?/AU				
L24.	1	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L20 AND (L21	OR	L22	OR	L23)
L24 L25	125	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L20 NOT L24				

```
ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2002 ACS
L24
     2001:903816 HCAPLUS
AN
     136:42843
DN
     Compositions, kits, and methods for promoting defined health benefits
ΤI
     Kern, Kenneth Norman; Heisey, Matthew Thomas
IN
     The Procter + Gamble Company, USA
PA
SO
     PCT Int. Appl., 45 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
     _____
                      ----
                            _____
                                           _____
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PΙ
     WO 2001093847
                       A2
                            20011213
                                           WO 2001-US17714 20010601
         W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI,
             FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
             KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
             MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,
             TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 2000-586213
                       Α
                            20000602
     US 2001-760280
                            20010112
                       Α
     The present invention is directed to compns. comprising: (a) a first
AΒ
     component selected from the group consisting of gelatin,
     cartilage, amino sugars, glycosaminoglycans,
     methylsulfonylmethane, precursors of methylsulfonylmethane,
     S-adenosylmethionine, salts and mixts.; and (b) a second component
     comprising a cation source selected from the group consisting of calcium,
     potassium, magnesium, and mixts. and an edible acid source. The present
     invention is further directed to food, beverage, pharmaceutical,
     over-the-counter, and dietary supplement products, which comprise the
     present compns. The invention also relates to kits comprising the present
     compns. and information that use of the compn. promotes one or more of the
     presently defined health benefits, including joint health, bone health,
     cardiac health, and anti-inflammation. The present invention addnl.
     relates to methods of treating joint function, bone function, cardiac
     function, or inflammation comprising administering to a mammal a compn. as
     defined herein. Thus, hard lemon candies are prepd. by combining the
     following components as indicated: sugar 200, light corn syrup 63, water
     60, lemon flavor glucosamine-HCl 16, and calcium citrate malate 14.9 g.
     66-84-2, Glucosamine hydrochloride 67-71-0,
     Methylsulfonylmethane 9007-28-7, Chondroitin sulfate
     29031-19-4, Glucosamine sulfate 29908-03-0
     216699-44-4
     RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (compns. and kits for promoting defined health benefits)
RN
     66-84-2 HCAPLUS
     D-Glucose, 2-amino-2-deoxy-, hydrochloride (8CI, 9CI) (CA INDEX NAME)
CN
Absolute stereochemistry. Rotation (+).
```

HCl

RN 67-71-0 HCAPLUS CN Methane, sulfonylbis- (9CI) (CA INDEX NAME)

RN 9007-28-7 HCAPLUS

CN Chondroitin, hydrogen sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 9007-27-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9 CMF H2 O4 S

RN 29031-19-4 HCAPLUS

CN D-Glucose, 2-amino-2-deoxy-, sulfate (salt) (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9

CMF H2 O4 S

CM 2

CRN 3416-24-8 CMF C6 H13 N O5

Absolute stereochemistry. Rotation (+).

RN 29908-03-0 HCAPLUS

CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 216699-44-4 HCAPLUS

CN D-Glucose, 2-amino-2-deoxy-, sulfate (salt), compd. with potassium chloride (KCl) (2:1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 7447-40-7 CMF Cl K

Cl-K

CM 2

CRN 14999-43-0 CMF C6 H13 N O5 . 1/2 H2 O4 S

CM 3

CRN 7664-93-9 CMF H2 O4 S

CM 4

CRN 3416-24-8 CMF C6 H13 N O5

Absolute stereochemistry. Rotation (+).